

## REMARKS/ARGUMENTS

Claims 18-37 are pending, claims 18 and 35 being independent. By the amendment presented above, claims 18, 23, 28, 32, 35 and 37 have been amended. The amendments to claims 23, 28 and 32 correct typographical errors in those claims, and are cosmetic only. No new matter has been added by any of the above amendments.

In the pending Office Action, the Examiner rejected claims 18-23, 22 [sic.], 35 and 36 under 35 U.S.C. § 102(e) as anticipated by United States Patent No. 6,259,082 (Fujimoto, *et al.*), and claims 24-32, 34 and 37 under 35 U.S.C. § 103(a) as obvious over Fujimoto, *et al.*

Applicants have carefully considered the Examiner's rejections, and the comments provided in support thereof, and disagree with the Examiner's analysis. For the reasons which follow, it is respectfully submitted that the invention as claimed is patentably distinct from the applied reference.

The invention is directed to an illumination arrangement for use in transmitting light along an optical waveguide. The arrangement includes a multi-piece shell which defines a cavity that houses the waveguide, at least in the regions in which the light is to be guided (deflected). At least one of the shell elements includes an inner wall which reflects the light. In some claimed embodiments, the shell housing includes a bridge over a second cavity (claims 19, 21 and 22), or may simply define the second cavity as being located between the housing and a circuit board (claim 36). In other claimed embodiments (claims 31 and 32), more than one light source is accommodated.

Fujimoto, *et al.* disclose an image reading apparatus for reading a document sheet K. A light source 2 transmits light which is reflected off an angled reflection plate 17 through a light leading member 10, disposed in an open housing 4. Light is reflected through a transparent glass plate 70 onto document sheet K and then onto image sensor chips 52, where information used to

form a document image is gathered. Fujimoto, *et al.*, however, do not disclose the use of a multi-piece shell arrangement to enclose an optical waveguide (or light leading member), the use of a bridge or of a second cavity beneath a waveguide, or the use of multiple sources of light.

The Examiner has apparently likened the light leading member 10 of Fujimoto, *et al.* to the claimed optical waveguide, and housing 4 of Fujimoto, *et al.* to the claimed housing. It is respectfully submitted that these comparisons are inapposite, and that the device disclosed in Fujimoto, *et al.* does not include a housing formed as a shell for enclosing an optical waveguide at least in regions in which the light is to be deflected, as claimed.

Claims 18 and 35, the only independent claims, specifically recite that the claimed housing is made up of a plurality of shell elements which define a cavity therein. This limitation illustrates the difference between the invention as claimed and the device disclosed in the applied reference. The housing 4 disclosed in Fujimoto, *et al.* is a single piece (*see* Fig. 7). It lacks the claimed plurality of shell elements which define a cavity therein for enclosing an optical waveguide .

Claims 18 and 35 further require that the reflection of the light is performed by an interior surface of the housing rather than by an independent element. Fujimoto, *et al.* neither teach nor suggest such an arrangement (requiring the use of a *separate* reflection plate 17), and therefore any rejection based on Fujimoto, *et al.* should be withdrawn.

Furthermore, the use of a multi-piece combination of shell elements to form the cavity is neither shown nor suggested by Fujimoto, *et al.* The claimed arrangement provides ease of manufacture compared to the device disclosed in Fujimoto, *et al.*, by allowing the simple placement of the optical waveguide within the shell elements and enclosing it therein. In

contrast, if reflective plate 17 of this reference were somehow made integral with the housing, such an arrangement would impede the mounting of member 10 into housing 4.

Additionally, Fujimoto, *et al.* fail to teach or suggest the formation of the housing in the shape of a bridge as recited in claim 19, or the formation of a second cavity underneath the housing as recited in claims 21 and 36. Therefore, these claims are unanticipated by, and patentably distinct from, the applied reference for this additional reason.

Claims 31 and 32 are directed to an embodiment of the invention in which more than one light source is accommodated. Fujimoto, *et al.* do not disclose the use of more than one light source. Additionally, disposing a second light source within open housing 4 of Fujimoto, *et al.* would necessitate the addition of a second reflection plate at the end thereof opposite the existing reflection plate 17. This second plate, if also made integral with housing 4, would effectively block the insertion of member 10 into housing 4.

Based on all of the above, it is respectfully submitted that the invention as claimed is allowable over the reference applied by the Examiner. Withdrawal of the pending rejections and allowance of the application are, therefore, respectfully solicited.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By Thomas Langer  
Thomas Langer  
Reg. No. 27,264  
551 Fifth Avenue, Suite 1210  
New York, New York 10176  
(212) 687-2770

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